grams), and male gender. Increasing length of mechanical ventilation and birth weight 500-999 grams were associated with ever receiving inhaled corticosteroids. **CONCLUSIONS:** Bronchodilator and ICS use are common for infants with BPD at U.S. Children's hospitals, although frequency of use varies significantly. The effectiveness and safety of their use in these infants needs to be determined, in order to develop evidence-based recommendations.

PIH50

EFFECTS OF ETHNICITY ON CAREGIVER BURDEN, SELF-EFFICACY, AND QUALITY OF LIFE AMONG WORKING CAREGIVERS OF OLDER ADULTS

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OBJECTIVES: Research has shown that employees caring for older adults may experience physiological and psychosocial effects and require family supports that may vary across different ethnic groups. The purpose of this study was to explore differences in caregiving skills; caregiver burden; self-efficacy; and quality of life, health and well-being of African-American and Caucasian caregivers who are providing care for an older adult. **METHODS:** A total of 153 Caucasian and African-American adults currently working and caring for an older adult were personally interviewed. **RESULTS:** The typical working caregiver was a 49-year-old woman caring for her 79-year-old mother with African-American caregivers more likely to be living in the same household. In the past six months, African-American caregivers were more likely to have taken off work more than twenty hours and used the telephone at work one to five times a week for caregiving responsibilities. Caregiver Self Efficacy was positively related to Caregiver Rewards (r=.424, p<0.001) and negatively related to Burden (r=-0.310, p<0.001) for both groups. Regarding Caregiving Skills, African-American caregivers rated their skills in communicating with their older loved one more highly than Caucasian (beta=.332, p<0.001) and were more likely to have taken more than 20 hours off work (beta =0.201, p<0.05). African-American caregivers were less confident of finding information and good resources for their elder care recipient and themselves than Caucasian caregivers (beta = -0.175, p<0.05 and beta = -0.183, p<0.05 respectively). Those caregivers with greater self-efficacy and greater caregiver rewards reported greater quality of life. There were significant differences in caregiver burden with African-Americans feeling a greater level of burden. **CONCLUSIONS:** The differing effects of elder caregiving among African-Americans and Caucasian caregivers may require different, more personalized caregiver interventions and supports to reduce the caregiver burden, increase feelings of rewards, and improve the quality of life for both ethnic groups.

INFECTION – Clinical Outcomes Studies

PIN1

MATCHING-ADJUSTED INDIRECT COMPARISON OF LIPID PROFILE AT 48 WEEKS AMONG TREATMENT NAÏVE HIV-1 PATIENTS TREATED WITH ATAZANAVIR/RITONAVIR VERSUS DARUNAVIR/RITONAVIR

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OBJECTIVES: This study estimates lipid profile changes and abnormalities in treatment naïve HIV patients initiating atazanavir/ritonavir (ATV/r) versus darunavir/ritonavir (DRV/r) using a matched indirect comparison. **METHODS:** Two similarly designed randomized trials were identified. Individual patient-level data were available for the CASTLE trial comparing ATV/r (n=430) and lopinavir/r (LPV/r) (n=438); published summary data were used from the ARTEMIS trial comparing DRV/r (n=343) and LPV/r (n=346). To adjust for cross-trial differences, CASTLE patients were re-weighted to match summary baseline characteristics in ARTEMIS. Lipid profile changes and serious (grade 2-4) lipid laboratory abnormalities (LA) at 48 weeks were compared between balanced trial populations after matching. If significant differences in LPV/r outcomes existed after matching, the differences between active treatments and LPV/r were compared across trials. **RESULTS:** Data from all patients in the two trials were included. Before matching, CASTLE patients at baseline had a higher proportion of HIV-1 RNA>100,000 copies/mL, a lower proportion CDC class C, and lower median CD4 cell count than ARTEMIS patients. An unadjusted cross-trial comparison at 48 weeks showed that ATV/r and DRV/r had similar changes in total cholesterol, low density lipoprotein (LDL), and triglycerides, but ATV/r had significantly lower rates of total cholesterol LA (7% vs.13%, p=0.008) and LDL LA (8% vs. 13%, p=0.040). After balancing mean baseline characteristics, ATV/r and DRV/r at 48 weeks had similar changes in total cholesterol, LDL, and triglycerides (adjusted difference [AD]= -7.19, -7.11 and 7.59 mg/dL, respectively) and similar percentages of grade 2-4 triglycerides and cholesterol LAs (AD=0% and 1%, respectively); however, ATV/r had a significantly lower rate of serious LDL LA (AD=-9%, p=0.006). **CONCLUSIONS:** While the overall lipid profiles of ATV/r and DRV/r were similar at 48 weeks in this matching-adjusted indirect comparison, ATV/r had a significantly lower rate of serious LDL LA.

PIN2

THE IMPACT OF CLOSTRIDIUM DIFFICILE INFECTION ON MEDICARE BENEFICIARY HEALTH CARE UTILIZATION AND OUTCOMES

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OBJECTIVES: Clostridium difficile infection (CDI) primarily occurs in elderly adults and contributes to excess patient mortality, readmissions, hospital costs, and post-discharge costs. Two-thirds of CDI hospitalizations are for patients with CDI as a secondary diagnosis ("secondary CDI"). This study assesses the burden of illness of secondary CDI on outcomes and healthcare utilization for hospitalized Medicare beneficiaries. **METHODS:** Using a 5% random sample of Medicare claims from 2009–2010, patients with and without secondary CDI and no prior hospitalization within the previous 30 days were identified. Prior year claims data were used to describe case mix and baseline characteristics. Propensity scores were developed to match CDI and non-CDI patients on potential confounding factors. Outcomes of interest were: index episode length-of-stay (LOS), emergency department (ED) and ICU use, inpatient mortality, post-discharge mortality, readmissions, and acute care use. **RESULTS:** The final sample size after a propensity score match was 3262 patients in each patient cohort. Secondary CDI was associated with an 80% increase in hospital LOS, and a greater than 160% increase in ICU days, relative to patients without CDI. Secondary CDI was associated with an 80% increase in both inpatient and 30-day post-discharge mortality. Inpatient mortality for immunocompromized patients was 130% greater than like patients without CDI. Secondary CDI was associated with a 41% increase in 30-day CDI readmission rates and a 46% increase in the number of readmissions per admission. Immunocompromised patients with secondary CDI were associated with a 180% increase in post-discharge CDI-related ED visits and a 65% increase in post-discharge skilled nursing facility admissions. **CONCLUSIONS:** Secondary CDI in hospitalized Medicare beneficiaries is associated with considerable negative impacts on LOS, mortality, readmission rates, and post-discharge utilization compared to matched controls. Consequently, comprehensive CDI prevention and treatment strategies are needed to decrease resource utilization and burden in patients who develop secondary CDI.

PIN3

USING CLAIMS DATA FOR SURGICAL SITE INFECTION SURVEILLANCE AFTER HERNIORRHAPHY

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OBJECTIVES: Billing and claims data can potentially be used to identify surgical site infections (SSIs) for quality improvement initiatives. We investigated the effect that variation in procedure coding by providers and facilities has on the calculated SSI incidence. **METHODS:** We established a retrospective cohort study of individuals aged 6 months – 64 years with ICD-9-CM procedure or CPT-4® codes from facility and/or provider claims for umbilical, femoral/inguinal, or incisional/ventral herniorrhaphy from 1/1/2004-12/31/2010 using private insurer claims data. SSIs within 90 days were identified by ICD-9-CM diagnosis codes, with censoring for other surgeries within 90 days. Complex surgeries with additional procedures performed on or before the herniorrhaphy date during a hospitalization were excluded. **RESULTS:** 155,748 non-complex herniorrhaphy procedures were initially identified based on distinct procedure dates >7 days apart. The number of distinct procedures was reduced to 144,220 after removing procedures with no supportive evidence for operation (e.g., anesthesia, operating room revenue codes, pathology; n=4,609) and surgeries coded for >1 hernia site or unclassified (n=6,919). The percentage of procedures complicated by SSI was compared according to the stringency of identification of hernia site. Using all claims coded for herniorrhaphy (facility and/or provider), 1.23% (363/29,582) of umbilical, 0.48% (433/90,231) of femoral/inguinal, and 4.00% (976/24,407) of incisional/ventral procedures were complicated by SSI within 90 days. In contrast, the percentages of procedures complicated by SSI were 1.17% (297/25,323) for umbilical, 0.46% (367/79,063) for femoral/inguinal, and 4.18% (752/17,981) for incisional/ventral herniorrhaphy when agreement between the provider and facility procedure coding was required to define the hernia site. **CONCLUSIONS:** Use of claims data to determine SSI rates requires careful classification of procedures, particularly when characteristics of the surgical procedure are important risk factors for infection.

PIN4

MULTIPLE SCLEROSIS INCREASES THE RISK OF INFECTIONS RESULTING IN A HOSPITALIZATION AMONG VETERANS

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OBJECTIVES: Multiple sclerosis (MS) is characterized by autoimmune mediated demyelination of the central nervous system, and affects nearly 300,000 individuals in the United States (US). Immunosuppressive MS therapy often leads to infections, which in turn may cause relapse or exacerbation of MS symptoms. This study is the first to evaluate the magnitude of the association between MS and serious infections in a US population. **METHODS:** Adult patients with MS, within the US Veterans Health Administration (VHA) system from 1999-2010 were identified. Those without encounters 6 months or more before the first diagnosis were excluded. Each MS patient was matched, on age and sex, with up to 4 non-MS patients. Cox Proportional Hazards regression models were developed to assess the influence of MS on serious infections identified by ICD-9 code. An infection was considered serious when listed as a hospital admission diagnosis in the VHA inpatient setting. Our regression models controlled for patient demographic characteristics, comorbid conditions, drug exposures, disability status, and health care utilization. **RESULTS:** Our analysis cohort consisted of 7,743 MS and 30,972 non-MS patients. Mean age was 53.8 (SD 13.4) years and 80.7% were male. Race was known in 40.8%; of which 80.2% were white, 16.0% black, and 3.8% variant ethnicities. The incidence of overall serious infections was 18.7 (95% CI=17.2-20.3) and 10.0 (95% CI=9.5-10.6) per 1,000 person-years for MS and non-MS patients, respectively. Regression models revealed that MS patients were at greater risk for overall serious infections (HR=1.54, p<0.001) as well as serious respiratory (HR=1.31, p=0.01), urinary tract